

27 July 1989

Second Generation Crewserved and Individual Served Weaponsights

Both sights operate on AA batteries, both use Automatic Brightness Control (ABC) to maintain constant illumination during periods of changing light; both have illuminated reticle with brightness control and either standard or custom designed patterns; mounts and brackets to fit specific user needs; both have manually adjustable image tube gains to compensate for levels of ambient lighting; and both use second generation 25-mm image tubes featuring muzzle flash protection.

Specifications:

Optical	Model 9865A	Model 9866A
Magnification	X6.2	X3.7
Field of view	9 degrees	14 degrees
		30 minutes
Focus range	25 m to infinity	25 m to infinity
Objective		
Focal length	155 mm	95 mm
T number	1.6	1.6
MTF	70%;40 lp/mm	70%;40 lp/mm
Eyepiece		
Focal length	26.5 mm	26.5 mm
Eye relief	34 mm	34 mm
Diopter range	+2 -5	+2 -5

Mechanical

Length	31 cm	24 cm
Width	16 cm	12 cm
Height	17 cm	12 cm
Weight	3 kg	1.7 kg

Electrical

Power	2 "AA" batteries	same
25 ma, 3.0 VDC	same	
Battery life	15 hrs +	same

Environmental

Temperature	Operating . . .	-65°F/	same
	+ 115°F	same
	Non-operating	-65°F/	same
	115°F	same
Humidity	Operating . . .	98%	same
	Non-operating	98%	same
Altitude	Operating . .	10,000 m	same
	Non-operating	40,000 m	same

System Resolution

100% Contrast:		
001 lux	2.5 lp/mr	1.6 lp/mr
1 lux	4.2 lp/mr	2.8 lp/mr
30% Contrast:		
001 lux	1.9 lp/mr	1.2 lp/mr
1 lux	3.5 lp/mr	2.2 lp/mr

Image Intensifier Tube Model 3603-1 (Model 9856A and 9866A Weaponsights)

Nominal operating voltage	2.65 VDC
Minimum resolution (center)	28 lp/mm
Minimum resolution (off center)	25 lp/mm
Magnification	96 to 1.04
Gain	30,000 min
Focusing Method	Electrostatic
Photocathode	S-20 extended red
Cathode sensitivity	240 μ a/lumen
Red Response	
8000A	15 ma/watt
8500A	10 ma/watt
9000A	On request
Useful cathode diameter	25 mm
Phosphor	Aluminized P-20
Equivalent background input	2×10^{-11} lumen/cm ²

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MAR 27, 1991

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Distortion 5% maximum

Modulation transfer function

2.5 lp/mm 90%

7.5 lp/mm 80%

15 lp/mm 25%

For further information, contact TRANSVARO Elektronik Aletleri Sanayi ve Ticaret A.S., Barbaros Bulvari Emlak Bloklari Blok 89/2, Besiktas, Istanbul, Turkey. Telephone 158 43 34, Fax 1618050, Telex 26 221.

ONREUR point of contact: CDR R. H. Taylor, USN, Undersea Systems Officer.

Distribution:

Standard

USMC

Accession For	
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Unannounced	<input type="checkbox"/>
Justification	
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Distribution/	
Availability Codes	
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